

A NEW ENCYRTID (HYMENOPTERA, CHALCIDOIDEA) GENUS OF PARASITES  
OF LERP-FORMING PSYLLIDS ON EUCALYPTUS.

By E. F. RIEK, Division of Entomology, C.S.I.R.O., Canberra, A.C.T.

(Seven Text-figures.)

[Read 26th September, 1962.]

*Synopsis.*

Two species of *Anisodromus*, a new genus of encyrtid parasites of lerp-forming psyllids on eucalypts, are described.

The encyrtid parasites described in this paper form one of the lesser groups of parasites of lerp-forming psyllids on eucalypts. They can be distinguished from the more abundant species of *Psyllaephagus* at once by the structure of the antennae. The antennae are similar in both sexes and the swollen club is strongly, obliquely acuminate. In this respect they somewhat resemble *Isodromus* and *Homalotylus*, but the club is three-segmented and not solid. Wing-venation too is distinct. The species of *Isodromus* are parasites of neuropterous (chrysopid and hemerobiid) larvae and those of *Homalotylus* parasitize coleopterous (coccinellid) larvae.

*Baeoanusia*, bred from chrysamelid eggs, is similar only in the shape of the female antenna and structure of the mandibles. (The African species, *oleae* (Silvestri) and *minor* (Silvestri), placed in *Baeoanusia* by Compere are generically distinct from *Baeoanusia*, differing among other characters in wing venation and the shape of the mandibles.) The antenna of the male in *Baeoanusia* is plumose and differs markedly from that of the female.

The genus differs from *Psyllaephagus* only in the structure of the antennae.

Genus ANISODROMUS, gen. nov.

Genotype, *Anisodromus tarsius*, sp. nov.

*Female.* Head lenticular, the caudal margin concave, subcarinate, hemispherical in lateral view; antennae inserted towards the mouth, short, flagellum expanding markedly to the obliquely acuminate club, antenna 11-segmented, the club three-segmented but the apical segment small, scape not markedly expanded; mandibles with the upper teeth developed into a broad cutting edge; scutellum with the apical three pairs of hairs enlarged, erect; axillae just meeting at meson; middle tarsus with basitarsus large, expanded, about as long as the following three segments combined, apical segment small, somewhat longer than the fourth segment but very much shorter than the basitarsus, basitarsal pad with numerous irregularly placed tubercles extending almost to base, with a short apical row; forewing with very short marginal vein, no longer than wide, stigmal vein well developed, diverging strongly from wing margin, postmarginal vein only slightly shorter than stigmal.

*Male.* Very similar to female, distinguishable mainly on genitalia; postmarginal vein slightly shorter than in female.

*Key to species of Anisodromus.*

1. Scape pale at base; apex of middle femur, tibia and most of tarsus and mesal surface of fore tibia and femur in part, pale; tegula reddish-brown; median ocellus about as far from eye as from lateral ocellus ..... *tarsius*, sp. nov.
- Scape all dark; legs, except middle tarsus in part, all dark; tegula whitish at basal half; median ocellus distinctly closer to eye than to lateral ocellus ..... *niger*, sp. nov.

ANISODROMUS TARSIVS, sp. nov.

*Female.* Body very dark metallic green with coppery and purple reflections; scape dark except at extreme base, pedicel dark except narrowly at apex, flagellum mostly dark; legs mostly dark, tarsi and joints paler; tegula pale, reddish-brown; caudal margin of prepectus widely pale; wings clear.

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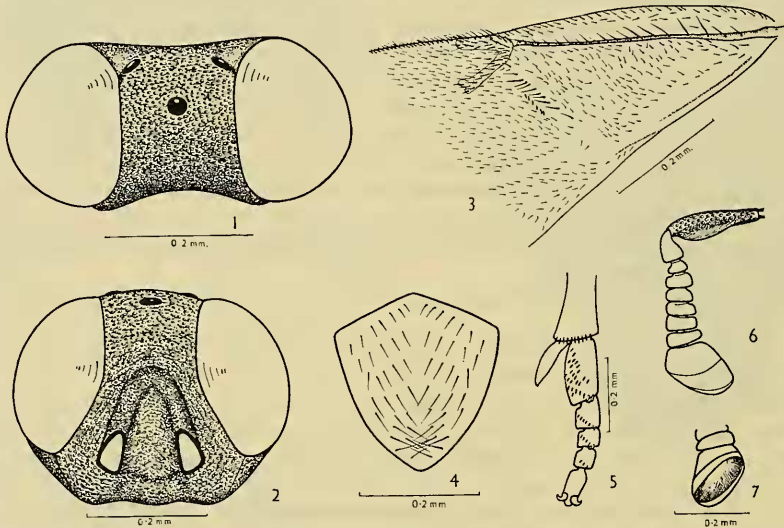
*Key to species of Anisodromus.*

1. Scape pale at base; apex of middle femur, tibia and most of tarsus and mesal surface of fore tibia and femur in part, pale; tegula reddish-brown; median ocellus about as far from eye as from lateral ocellus ..... *tarsius*, sp. nov.
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ANISODROMUS TARSIVS, sp. nov.

*Female.* Body very dark metallic green with coppery and purple reflections; scape dark except at extreme base, pedicel dark except narrowly at apex, flagellum mostly dark; legs mostly dark, tarsi and joints paler; tegula pale, reddish-brown; caudal margin of prepectus widely pale; wings clear.

Length 1.6 to 1.9 mm.; vertex of head wide, as wide as eye width, very finely, evenly, rugoso-punctate, lateral ocelli less than half their diameter from eye, much further apart than either is from median ocellus, median ocellus about as far from eye as from lateral ocellus; scrobes clearly defined, deep, converging and meeting above in a rounded point, well removed from eye margin; area between scrobes slightly raised; silvery hairs of lower face rather short and sparse, continued to the upper limits of the scrobes; antennal insertions only slightly further apart than either is from eye, not quite as far from lower border of clypeus as from eye; scape somewhat expanded below over apical half, narrowed and rounded at base, pedicel relatively large, distinctly longer than wide, funicle segments all small, expanding, first segment much narrower than pedicel, subquadrate, second segment widening rapidly, slightly wider than long, following segments subequal in length to second segment but widening, club large, markedly expanded, obliquely acuminate from near base, about half as long as funicle segments combined, club three-segmented, first segment largest, apical segment very



Figures 1-7. *Anisodromus tarsius*.—1, Head, dorsal view; 2, Head, frontal view; 3, Basal half of forewing; 4, Scutellum; 5, Middle tarsus, ventral; 6, Antenna; 7, Club of antenna, ventral.

small; scutellum with hairs rather long and dense, covering most of the dorsal surface, at least the apical three pairs enlarged and erect; basitarsal pad of middle tarsus with numerous tubercles including a short apical row; gaster clearly shorter than the thorax; ovipositor not exerted; hairs under submarginal vein evenly spaced except for a small clear area towards base; postmarginal vein very slightly shorter than stigmal.

*Male*. Almost indistinguishable from female apart from genitalia.

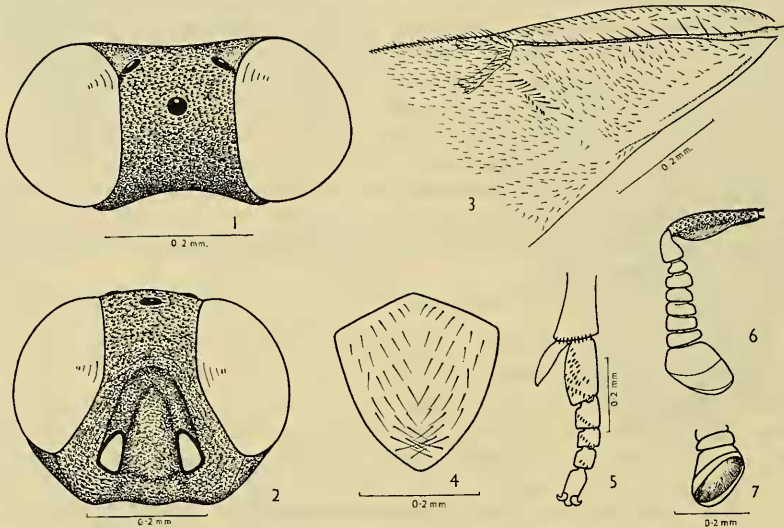
*Types*: Holotype ♀, allotype ♂ and paratypes in the Australian National Insect Collection, C.S.I.R.O., Division of Entomology Museum, Canberra. Paratypes in the British Museum (Nat. Hist.) and the U.S. National Museum.

*Type locality*: Canberra, Australia (30 Aug. 1953, L. R. Clark), bred from *Spondylia sp. nigra* on *Eucalyptus melliodora*. Paratypes also from *Spondylia sp. bancrofti* group and *Creiis ? liturator* on *Eucalyptus melliodora*, Mt. Franklin, Australian Capital Territory (2 Mar. 1949, E. F. Riek), bred from finger-like psyllid gall on *Eucalyptus* sp.

The species is also recorded from Bright, Victoria (24 Feb. 1949, E. F. Riek), bred from finger-like psyllid gall (? *Choiza* sp.) on *Eucalyptus niphophila*.

The species is short and stocky and of rather dark colouring, appearing black to the naked eye.

Length 1.6 to 1.9 mm.; vertex of head wide, as wide as eye width, very finely, evenly, rugoso-punctate, lateral ocelli less than half their diameter from eye, much further apart than either is from median ocellus, median ocellus about as far from eye as from lateral ocellus; scrobes clearly defined, deep, converging and meeting above in a rounded point, well removed from eye margin; area between scrobes slightly raised; silvery hairs of lower face rather short and sparse, continued to the upper limits of the scrobes; antennal insertions only slightly further apart than either is from eye, not quite as far from lower border of clypeus as from eye; scape somewhat expanded below over apical half, narrowed and rounded at base, pedicel relatively large, distinctly longer than wide, funicle segments all small, expanding, first segment much narrower than pedicel, subquadrate, second segment widening rapidly, slightly wider than long, following segments subequal in length to second segment but widening, club large, markedly expanded, obliquely acuminate from near base, about half as long as funicle segments combined, club three-segmented, first segment largest, apical segment very



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The species is short and stocky and of rather dark colouring, appearing black to the naked eye.

## ANISODROMUS NIGER, sp. nov.

*Female.* Body very dark metallic green with purple and coppery reflections; scape all dark, flagellum mostly dark; legs dark except middle tarsus and joints very narrowly; tegula pale, whitish at base, reddish-brown at apex; caudal margin of prepectus widely pale; wings clear.

Length 2.0 to 2.3 mm.; vertex of head wide, not quite as wide as eye width, very finely, evenly, rugoso-punctate, mesal margins of eyes subparallel, lateral ocelli less than half their diameter from eye, much further apart than either is from median ocellus, median ocellus distinctly somewhat closer to eye than to lateral ocellus; scrobes clearly defined, deep, converging and meeting above in a rounded point, well removed from eye margin; area between scrobes only slightly raised; silvery hairs of lower face rather short and sparse, continued to the upper limits of the scrobes; antennal insertions only slightly further apart than either is from eye, distinctly closer to lower border of clypeus than to eye; scape slightly expanded below over apical half, narrowed and rounded at the base, pedicel relatively large and stout but clearly longer than wide, funicle segments all small, expanding, first funicle much narrower than pedicel, sub-quadrate, second funicle considerably wider, a little wider than long, following segments subequal in length but widening, the sixth funicle about one and a half times as wide as the second, club large, markedly expanded, obliquely acuminate from near base, about half as long as funicle segments combined, club three-segmented, first segment largest, apical segment very small; scutellum with hairs rather long and dense, covering most of the dorsal surface, at least the apical three pairs enlarged, erect; basitarsal pad of middle tarsus with numerous tubercles, the apical row with few tubercles; gaster clearly shorter than thorax; ovipositor not exerted; hairs under submarginal vein somewhat irregularly placed; postmarginal vein as long as the stigmal.

*Male.* Not known.

*Types:* Holotype ♀ and two paratype females in the Australian National Insect Collection.

*Type locality:* Canberra, Australia (2 Dec. 1952, L. R. Clark), bred from *Lasiopsylla* sp. *rotundipennis* group on *Eucalyptus blakelyi*. Paratypes, same data except 11 Nov. 1953 and 22 Oct. 1954.

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